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Curriculum Vitae
CASTAGNOLI, Neal

Professor of Chemistry and
Pharmaceutical Chemistry.

Date of Birth. REDACTED

Place of Birth. Los Angeles, California.

PROFESSIONAL COMPETENCE.

EDUCATION. UNDERGRADUATE AND GRADUATE.

| | |
|---|---|
| 1964 | Ph.D., Chemistry.<br>University of California<br>Berkeley, Ca. |
| 1961 | M.A., Endocrinology.<br>University of California<br>San Francisco, Ca. |
| 1959 | B.S., Chemistry.<br>University of California<br>Berkeley, Ca. |

EDUCATION. POSTGRADUATE.

| | |
|---|---|
| 1965-1966 | NIH Postdoctoral Fellow.<br>Imperial College<br>Department of Biochemistry<br>London, England. |
| 1964-1965 | NIH Postdoctoral Fellow.<br>Istituto Superiore di Sanita<br>Rome, Italy. |



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SCHOLASTIC AND PROFESSIONAL HONORS/AWARDS.

Academic Senate, Distinguished Teaching Award, U.C.S.F., 1970-1971.

SPECIALTY/SUBSPECIALTY. Organic Chemistry.
Drug Metabolism.

POSITIONS HELD.

| | |
|---|---|
| 1976- | Professor,<br>(on leave 09/80 - 09/81). |
| 1973-1976 | Associate Professor. |
| 1967-1973 | Assistant Professor. |
| | University of California<br>School of Pharmacy<br>Department of Pharmaceutical Chemistry<br>San Francisco, Ca. |
| 1980-1981 | Special Assistant to Commissioner.<br>Food and Drug Administration |
| | Department of Health, Education, and Welfare<br>Public Health Administration<br>Rockville, Md. |

ADMINISTRATIVE APPOINTMENTS.

| | |
|---|---|
| 1977- | Vice-chairman,<br>(on leave 09/80 to 09/81). |
| | University of California<br>School of Pharmacy<br>Department of Pharmaceutical Chemistry<br>San Francisco, Ca. |

MEMBERSHIPS IN SCIENTIFIC, PROFESSIONAL AND SCHOLARLY SOCIETIES.

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Curriculum Vitae
CASTAGNOLI, Jr., Neal

PUBLICATIONS.

ORIGINAL ARTICLES.

(1) 2,2'-Bipyrrole. H. Rapoport and N. Castagnoli. J. Am. Chem. Soc., 84, 2178-2181 (June 5, 1962).

(2) 2'2':5',2"-Terpyrrole. H. Rapoport, N. Castagnoli, Jr., and K. G. Holden. J. Org. Chem., 29, 883-885 (April 1964).

(3) Occurrence of D-Lysergic Acid and 6-Methylergol-8-ene-8-carboxylic Acid in Cultures of Claviceps purpurea. N. Castagnoli and P. G. Mantle. Nature, 211, No. 5051, 859-860 (1966).

(4) The Synthesis of Pyrrolidine-Substituted Nicotine Analogs. N. Castagnoli, Jr., A. P. Melikian and V. Rosnati. J. Pharm. Sci., 58, No. 7, 860-863 (1969).

(5) The Condensation of Succinic Anhydride with Benzylidinemethylamine. A Stereoselective Synthesis of trans- and cis-1-Methyl-4-carboxy-5-phenyl-2- pyrrolidinone. N. Castagnoli, Jr. J. Org. Chem., 34, No. 10, 3187-3189 (1969).

(6) Biosynthesis of N-(ℓ-Hydroxyethyl)lysergamide, a Metabolite of Claviceps paspalis. Stevens & Hall. N. Castagnoli, Jr., K. Corbett, E. B. Chain and R. Thomas, Biochem. J., 117, 451-455 (1970).

(7) Identification of Metabolites of Benzo(a)pyrene Produced by Cells from Hamsters Susceptible to Chemical Carcinogenesis. R. E. Rasmussen and N. Castagnoli. University of California Task Force Assessments - Project Clean Air, 2, 1-12 (September 1, 1970).

(8) Amine-N-Oxide Rearrangements. Mechanism and Products of Thermolysis. N. Castagnoli, Jr., J. C. Craig, A. P. Melikian, and S. K. Roy. Tetrahedron, 26, 4319-4327 (1970).



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(9) Evidence for the Intermolecular Nature of the Meisenheimer Rearrangement of Amine-N-Oxides. N. Castagnoli, Jr., J. C. Craig, A. P. Melikian, and S. K. Roy. Chem. Commun., 1327-1328 (1970).

(10) The Condensation of Succinic Anhydrides with Schiff Bases. Scope and Mechanism. M. Cushman and N. Castagnoli, Jr. J. Org. Chem., 36, No. 22, 3404-3406 (1971).

(11) Microsomal 3-Hydroxylation of 1,4-Benzodiazepines. W. Sadee, W. Garland and N. Castagnoli, Jr. J. Med. Chem., 14, No. 7, 643-645 (1971).

(12) The Structure of Hydroxycotinine, a Nicotine Metabolite. E. Dagne and N. Castagnoli, Jr. J. Med. Chem., 15, No. 4, 356-358 (1972).

(13) The Synthesis of trans-3'-Methylnicotine. M. Cushman and N. Castagnoli, Jr. J. Org. Chem., 37, No. 8, 1268-1271 (1972).

(14) Cotinine-N-Oxide, a New Metabolite of Nicotine. E. Dagne and N. Castagnoli, Jr. J. Med. Chem., 15, No. 8, 840-841 (1972).

(15) Mechanism of the Reaction of a 1,4-Benzodiazepine-N-Oxide with Acetic Anhydride. N. Castagnoli, Jr. and W. Sadee, J. Med. Chem., 15, No. 10, 1076-1078 (1972).

(16) Nuclear Magnetic Resonance and Infrared Studies on the Tautomerism of 1-Ethyl-3-(3'dimethylamino-propyl)-carbodiimide. T. Tenford, R. A. Fawwaz, N. K. Freeman and N. Castagnoli, Jr. J. Org. Chem., 37, No. 21, 3372-3374 (1972).

(17) A Novel Approach to the Synthesis of Nitrogen Analogs of the Tetrahydrocannabinols. M. Cushman and N. Castagnoli, Jr. J. Org. Chem., 38, No.4, 440-448 (1972).

(18) Absolute Configuration of α-Methyldopamine Formed Metabolically from α-Methyldopa in Man. K. S. Marshall and N. Castagnoli, Jr. J. Med. Chem., 16, No.3, 266-270 (1973).

(19) Metabolic Conversion of Benzo[a]pyrene by Syrian Hamster Liver Microsomes and Binding of Metabolites to Deoxyribonucleic Acid. A. Borgen, H. Darvey, N. Castagnoli, Jr. T. T. Crocker, R. E. Rasmussen, and I. Y. Wang. J. Med. Chem., 16, No. 5, 502-506 (1973).



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(20) Synthesis of N-Pentafluorobenzoyl-S-(-)-prolyl 1-Imidazolide, A New Electron-capture Sensitive Reagent for Determination of Enantiomeric Composition. S. B. Matin, M. Rowland and N. Castagnoli, Jr. J. Pharm. Sci., 62, No. 5, 821-823 (1973).

(21) Synthesis of cis- and trans- 1-(3,4-Dimethoxybenzyl)- 3,7-dimethyl-5,8-dimethoxy-1,2,3,4-tetrahydroiso-quinoline. Observations on the Mechanism of the Bischler-Napieralski Reaction. J. Gal, R. J. Weinkam, and N. Castagnoli, Jr. J. Org. Chem., 39, No. 3, 418-421 (1974).

(22) Synthesis of Pharmacologically Active Nitrogen Analogs of the Tetrahydrocannabinols. M. Cushman and N. Castagnoli, Jr. J. Org. Chem., 39, No. 11, 1546-1550 (1974).

(23) Chemical Conversion of the Psychotomimetic Amine 1-(2,5-Dimethoxy-4-methylphenyl)-2-aminopropane to 5-Hydroxy-2,6-dimethylindole. J. S. Zweig and N. Castagnoli, Jr. J. Med. Chem., 17, No. 7, 747-749 (1974).

(24) Stereochemical Aspects and Metabolite Formation in the in vivo Metabolism of the Psychotomimetic Amine 1-(2,5-Dimethoxy-4-methylphenyl)-2- aminopropane. S. B. Matin, P. S. Callery, J. S. Zweig, A. O'Brien, R. Rapoport, and N. Castagnoli, Jr. J. Med. Chem., 17, No. 8, 877-882 (1974).

(25) The Synthesis of $^{13}$C-Enriched $\alpha$-Methyldopa. M. M. Ames and N. Castagnoli, Jr. J. Labelled Compd., 10, No. 2, 195-205 (1974).

(26) Deuterium Isotope Effects in the in vivo Metabolism of Cotinine. E. Dagne, L. Gruenke, and N. Castagnoli, Jr. J. Med. Chem., 17, No. 12, 1330-1333 (1974).

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(28) Metabolic O-Demethylation of the Psychotomimetic Amine 1-(2,5-Dimethoxy-4-Methylphenyl)-2-Amino-propane. J. S. Zweig and N. Castagnoli, Jr. Psychopharmacol. Commun., 1, No. 4, 359-371 (1975).

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(32) Differing Antitumor Activities of the Hydrochloride and the Methiodide Salts of 1-Ethyl-3-(3'-dimethyl-aminopropyl) carbodiimide. T. S. Tenforde, R. A. Fawwaz, and N. Castagnoli, Jr. J. Pharm. Sci., 65, No. 4, 631-632 (1976).

(33) The Pharmacological Effects of Conjugates of Pharmacologically Active Amines to Complex or Simple Carriers: A New Class of Drug. K. L. Melmon, Y. Weinstein, H. R. Bourne, T. Poon, G. Shearer and N. Castagnoli, Jr. Mol. Pharmacol., 12, 701-710 (1976).

(34) A Convenient Synthesis of Quinones from Hydroquinone Dimethyl Esthers. Oxidative Demethylation with Ceric Ammonium Nitrate. P. Jacob, III, P. S. Callery, A. T. Shulgin and N. Castagnoli, Jr. J. Org. Chem., 41, No. 22, 3627-3629 (1976).

(35) Metabolic N-Demethylation of Nicotine. Trapping of a Reactive Iminium Species with Cyanide Ion. T. Nguyen, L. D. Gruenke, and N. Castagnoli, Jr. Letter to Editor, J. Med. Chem., 19, No. 9, 1168-1169 (1976).

(36) The Synthesis of Deuterium Enriched Erythro- α-methylnorepinephrine and Norepinephrine. A. Kalir, C. Freed, K. L. Melmon, and N. Castagnoli, Jr. J. Labelled Compd. Radiopharm., 13, No. 1, 41-58 (1977).

(37) On the Pharmacology of the Ketamine Enantiomorphs in the Rat. M. P. Marietta, W. L. Way, and N. Castagnoli, Jr., and H. A. Trevor. J. Pharmacol. Exp. Ther., 202, No. 1, 157-165 (1977).



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(38) In Vitro Stereoselective Metabolism of the Psychotomimetic Amine, 1-(2,5-Dimethoxy-4-methylphenyl)-2-aminopropane. An Apparent Enantiomeric Interaction. N. P. McGraw, P. S. Callery, and N. Castagnoli, Jr. J. Med. Chem., 20, 185-189 (1977).

(39) In Vitro O-Demethylation of the Psychotomimetic Amine, 1-(2,5-Dimethoxy-4-methylphenyl)2-amino-propane. J. Zweig and N. Castagnoli, Jr. J. Med. Chem., 20, 414-421 (1977).

(40) Chemical Ionization Mass Spectrometric Measurement of α-Methyldopa and S-Dopa Metabolites in Rat Brain Regions. R. Freed, R. J. Weinkam, K. L. Melmon, and N. Castagnoli, Jr. Anal. Biochem., 78, 319-332 (1977).

(41) Mutagenic Activity of Some Centrally Active Aromatic Amines in Salmonella typhimurium. T. J. White, D. Goodman, A.T. Shulgin, N. Castagnoli, Jr., R. Lee, and N. L. Petrakis. Mutat. Res., 56, 199-202 (1977).

(42) Stereochemical Course in vivo of Alpha-Methyldopa Decarboxylation in Rat Brains. M. M. Ames, K. L. Melmon, and N. Castagnoli, Jr. Biochem. Pharmacol., 26, 1757-1762 (1977).

(43) Monomethylthio Analogues of 1-(2,4,5-Trimethoxy-phenyl)-2-aminopropane. P. Jacob, III, G. Anderson, III, C. K. Meshul, A. T. Shulgin, and N. Castagnoli, Jr. J. Med. Chem., 20, 1235-1239 (1977).

(44) Nicotine in Breast Fluid of Nonlactating Women. N. L. Petrakis, L. D. Gruenke, T. C. Beelen, J. C. Craig, and N. Castagnoli, Jr. Science, 199, 303-305 (January 20, 1978).

(45) Oxidative and Cardiovascular Studies on Natural and Synthetic Catecholamines. C. G. Chavdarian, D. Karashima and N. Castagnoli, Jr. J. Med. Chem., 21, No. 6, 548-554 (1978).

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(47) Metabolic Oxidation of Nicotine to Chemically Reactive Intermediates. T.-L. Nguyen, L. D. Gruenke, and N. Castagnoli, Jr. J. Med. Chem., 22, No. 3, 259-263 (1979).



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(49) Synthesis, Redox Characteristics, and in Vitro Norepinephrine Uptake Inhibiting Properties of 2-(2-Mercapto-4,5-dihydroxyphenyl)ethylamine (6-Mercaptodopamine). C. G. Chavdarian and N. Castagnoli, Jr. J. Med. Chem., 22, No. 11, 1317-1322 (1979).

(50) In Vitro Studies of Poison Oak Immunity. I. In Vitro Reaction of Human Lymphocytes to Urushiol. V. S. Byer, W. L. Epstein, N. Castagnoli, Jr., and H. Baer. J. Clin. Invest., 64, 1437-1448 (1979).

(51) In Vitro Studies of Poison Oak Immunity. II. Effect of Urushiol Analogs on the Human In Vitro Response. V. S. Byer, N. Castagnoli, Jr., and W. L. Epstein. J. Clin. Invest., 64, 1449-1456 (1979).

(52) Trapping of Metabolically Generated Electrophilic Species with Cyanide Ion: Metabolism of 1-Benzylpyrrolidine. B. Ho and N. Castagnoli, Jr. J. Med. Chem., 23, No. 2, 133-139 (1980).

(53) Synthetic and Preliminary Hemodynamic and Whole Animal Toxicity Studies on (R,S)-, (R)-, and (S)-2-Methyl-3-(2,4,5-trihydroxyphenyl)alanine. D. G. Musson, D. Karashima, H. Rubiero, K. L. Melmon, A. Cheng, and N. Castagnoli, Jr. J. Am. Chem. Soc., 23, No. 1, 1318-1323 (1980).

(54) Reversed Phase, Ion-Pair Liquid Chromatography of Quaternary Ammonium Compounds; Determination of Pyridostigmine, Neostigmine and Edrophonium in Biological Fluids. M. G. M. de Ruyter, R. Cronnelly, and N. Castagnoli, Jr., J. Chromatogr., 183, 193-201 (1980).

(55) Studies on Chiral Interactions of 1-(2,5-Dimethoxy-4-methylphenyl)-2-aminopropane and the Corresponding N-Hydroxy Metabolites with Cytochrome P-450. N. P. McGraw and N. Castagnoli, Jr. J. Med. Chem., 24, 299-304 (1981).

(56) The Tautomeric Structures of 5-Hydroxycotinine, a Secondary Mammalian Metabolite of Nicotine. T-L. Nguyen, E. Dagne, L. Gruenke, H. Bhargava, and N. Castagnoli, Jr.J. Org. Chem., 46, 758-760 (1981).



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(57) Regiospecific Attack of Nitrogen and Sulfur Nucleophiles on Quinones Derived from Poison Ivy/Oak Catechols (Urushiols) and Analogs as Models of Urushiol-Protein Conjugate Formation. D. J. Liberato, V. S. Byrs, R. G. Dennick, and N. Castagnoli, Jr. J. Med. Chem., 24, 28 (1981).

(58) Trapping of Metabolically Generated Electrophilic Species with Cyanide Ion: Metabolism of Methapyrilene. R. Ziegler, B. Ho, and N. Castagnoli, Jr. J. Med. Chem., ~~(in press, 1981)~~. 24, 1133 (1981)

(59) Renal and Biliary Elimination of ORG - NC 45 (Norcuron) and Pancuronium in Rats Using a New Mass Spectrometric Assay. R. A. Upton, T.-L. Nguyen, R. D. Miller, and N. Castagnoli, Jr. J. Anaesth. Res., (in press, 1981).

(60) Derivatization of Chiral Amines with (S,S)-N-Trifluoroacetylproline Anhydride for Gas Chromatographic Estimation of Enantiomeric Composition. J. D. Adams, T. F. Woolf, A. J. Trevor, L. R. Williams, and N. Castagnoli, Jr. J. Pharm. Sci., (in press, 1981).

(61) Studies on the Biotransformation of Ketamine: Identification of Metabolites Produced in vitro from Rat Liver Microsomal Preparations. J. D. Adams, T. A. Baillie, A. J. Trevor, and N. Castagnoli, Jr. Biomed. Mass. Spectrom., (in press, 1981).

(62) Structure-Activity Relationships in a Series of 2,3,5-Substituted Derivatives of 1-Phenyl-2-aminopropane. Consideration of Distributional and Metabolic Properties. G. M. Anderson, P. Jacobs, A. T. Shulgin, P. A. Kollman, and N. Castagnoli, Jr. J. Med. Chem., (submitted, 1981).

(63) Ion Pair High-Performance Liquid Chromatographic Assay of 4-Aminopyridine in Serum. Y. Shinohara, R. D. Miller, and N. Castagnoli, Jr. J. Chromatogr., (submitted, 1981).

(64) The Interaction of 3-n-Pentadecylcatechol, A Constituent of Poison Oak Urushiol, with Proteins. R. S. Dennick, V. S. Byers, N. Castagnoli, Jr., and R. W. Baldwin. Clin. Invest., (submitted, 1981).

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(65) Photoelectron Spectra of Psychotropic Drugs. 6. Relationships Between Physical Properties and Pharmacological Actions of Amphetamine Analogs. L. N. Domelsmith, K. N. Houk, G. M. Anderson, III, R. A. Glennon, A. T. Shulgin, N. Castagnoli, Jr., and P. A. Kollman. ~~(submitted, 1981).~~ J. Med. Chem., 24, 1414 (1981).

BOOKS.

(1) Mass Spectrometry in Biochemistry and Medicine. Edited by A. Frigerio and N. Castagnoli, Jr. New York: Raven Press, 1974.

(2) Advances in Mass Spectrometry in Biochemistry and Medicine, Vol. I. Edited by A. Frigerio and N. Castagnoli. New York: Spectrum Publications, Inc., 1976.

ARTICLES AND CHAPTERS IN BOOKS.

(1) Ergot Alkaloids in Submerged Culture. N. Castagnoli, Jr. and A. Tonolo. Article in International Congress for Microbiology, pp. 31-40. Ninth Symposium, Moscow, U.S.S.R. New York: Paragamon Press. 31-40 (1966).

(2) Stable Isotope-Mass Spectrometry in Drug Metabolism and Pharmacokinetics. W. Sadee, C. Finn, N. Castagnoli, and W. Garland. Article in Proceedings of the First International Conference on Stable Isotopes in Chemistry, Biology, and Medicine., pp. 346-352. Edited by P. D. Klein and S. V. Peterson.

(3) Mass Spectrometric Analyses of Stable Isotopes in Drug Metabolism Studies. N. Castagnoli, Jr., E. Dagne and L. D. Gruenke. Article in Mass Spectrometry in Biochemistry and Medicine, pp. 57-63. Edited by A. Frigerio and N. Castagnoli. New York: Raven Press, 1974.

(4) The Use of Deuterium-Labeling and Chemical Ionization Mass Spectrometric Analyses in Studies on the Metabolism of the Psychotomimetic Amine 1-(2,5-Dimethoxy-4-Methylphenyl)-2-aminopropane. N. Castagnoli, J. S. Zweig, and R. Weinkam. Article in Advances in Mass Spectrometry in Biochemistry and Medicine, Vol. 1, pp. 119-127. Spectrum Publications, Inc., 1976.

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(5) Vapor-Phase Organic Pollutants. Volatile Hydrocarbons and Oxidation Products. Environmental Pollutants. Article in Medical and Biological Effects of Environmental Pollutants, pp. 162-169, (Division of Medical Sciences Assembly of Life Sciences National Research Council). National Academy of Sciences, Washington, D.C., 1976.

(6) Drug Metabolism: Review of Principles and the Fate of One-Ring Psychotomimetics. N. Castagnoli, Jr. Article in Handbook of Psychopharmacology. Vol. 11, pp. 335-387. Edited by L. L. Iversen, S. D. Iversen and S. H. Snyder. New York: Plenum Press, 1976.

(7) Application of Chemical Ionization Mass Spectrometry and Stable Isotopes in Studies of α-methyldopa Metabolism. N. Castagnoli, K. L. Melmon, C. R. Freed, M. M. Ames, A. Kalir, and R. Weinkam. Article in Stable Isotopes. Applications in Pharmacology, Toxicology and Clinical Research, pp. 260-279. Edited by T. A. Baillie. Proceedings of an International Symposium on Stable Isotopes, Royal Postgraduate Medical School, London, U. K., January 1977.

(8) Enantioselectivity in Drug Metabolism. L. K. Low and N. Castagnoli, Jr. Chapter 31 in Annual Reports in Medicinal Chemistry, Vol. 13, pp. 304-315. Edited by F. H. Clarke. New York: Academic Press, 1978.

(9) Drug Biotransformation. L. K. Low and N. Castagnoli, Jr. Chapter in Burger's Medicinal Chemistry, Ed. 3. Edited by M. E. Wolff. New York: Wiley-Interscience, 1978.

(10) Chemical and Biological Studies on 6-Hydroxydopamine Analogs. N. Castagnoli, Jr., C. A. Chavadarian, and D. Karashima. Article in Catecholamine Basic and Clinical Frontiers. Proceedings of the Fourth International Catecholamine Symposium. Edited by E. Usdin and J. Barchus. New York: Plenum Press, 1978.

(11) Studies on 2-Methyl-3-(2,4,5-trihydroxyphenyl)alanine, the "6-Hydroxy Analog" of α-Methyldopa. N. Castagnoli, Jr., D. Musson, D. Karashima, and K. Melmon. Article in Catecholamine Basic and Clinical Frontiers. Proceedings of the Fourth International Catecholamine Symposium. Edited by E. Usdin and J. Barchus. New York: Plenum Press, 1978.



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(12) The Chemistry and Pharmacology of Catecholamines and Other Low Molecular Weight Ligands Conjugated to Carriers. K. L. Melmon, M. S. Verlander, L. Krasny, M. Goodman, N. Kaplan, N. Castgnoli, Jr., and P. Insel. Article in Catecholamine Basic and Clinical Frontiers. Proceedings of the Fourth International Catecholamine Symposium, pp. 474-476. Edited by E. Usdin and J. Barchus. New York: Plenum Press, 1978.

(13) Quantitative Structure-Activity Relationships in the 2,4,5-Ring Substituted Phenylisopropylamines. G. M. Anderson, III, N. Castagnoli, Jr., and P. A. Kollman. Article in Symposium on the Structure-Activity Relationships of the Narcotic Analgesics and Hallucinogens, QuaSAR Research Monograph 22, pp. 199-217. Edited by G. Barrett, M. Trsic, and R. Willette. New York: Raven Press, 1978.

(14) Application of Chemical Ionization Mass Spectrometry to the Study of Regional Brain Catecholamine Metabolism in (S)-α-Methyldopa Treated Rats. D. Karashima, R. L. Cockerline, K. L. Melmon, and N. Castagnoli, Jr. Article in International Symposium on Biomedical Mass Spectrometry. Edited by A. Frigerio, 1978.

(15) Drug Biotransformations. L. K. Low and N. Castagnoli, Jr. Chapter 3 in Burger's Medicinal Chemistry, Ed. 4, Pt. 1, pp. 107-226. Edited by M. E. Wolff. New York: John Wiley & Sons, Inc., 1980.

BOOK REVIEWS.

(1) A Review of Design of Active-Site-Directed Irreversible Enzyme Inhibitors. Vol.Edited by N. Castagnoli, Jr., Am. J. Pharm. Educ., 32, 172 (1968).

(2) A Review of Bently and Driver's Textbook of Pharmaceutical Chemistry. N. Castagnoli, Jr., Am. J. Pharm. Educ., 34, 334-335 (1970).



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CASTAC I, Neal

Faculty

TEACHING.

Courses Taught. 1980/1981.

ON LEAVE OF ABSENCE

| Course Name | Shared With | Number | Units | Lecture | Laboratory | Seminar Conference | Clerkship | F | W | S | SS | Hrs/Qtr* | Students | Lecturer | Lab Instructor | Conference Leader | Coordinator | Preceptor | |
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*Individual Contribution...Actual Contact Hours (Teaching & Consultation but not Preparation Time).

Comments:

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CASTAGNOLI, Neal

Faculty

TEACHING.

Courses Taught. 1981/1982.

| Course Name | Shared With | Number | Units | Lecture | Laboratory | Seminar Conference | Clerkship | F | W | S | SS | Hrs/Qtr* | Students | Lecturer | Lab Instructor | Conference Leader | Coordinator | Preceptor | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chemistry | Full Responsibility | 113 | 5 | x | | x | | x | | | | 10 | 100 | x | | x | | | |
| Pharm.Chem. | " " | 250 | 6-8 | x | | x | | x | x | x | x | 8 | 4 | x | | x | | | |
| Pharm.Chem./One time lecture | Staff | 201 | 3 | x | | | | x | | | | | 20 | x | | | | | |
| Pharm.Chem. | Full Responsibility | 203 | 2-3 | x | | | | | | x | | 30 | 20 | x | | | | | |
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*Individual Contribution...Actual Contact Hours (Teaching & Consultation but not Preparation Time).

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Curriculum Vitae
CASTAGNOLI, Jr., Neal

TEACHING. (Since Last Review).

DOCTORAL DISSERTATIONS COMPLETED UNDER CHAIRMANSHIP.

Armen Melikian, Ph.D., Pharm.Chem., Study of Compounds Related to Nicotine, 1970-1971.

S. B. Matin, Ph.D., Pharm.Chem., The Stereochemical Aspects of Centrally Active Compounds, 1971-1972 (Supervised in part).

Mark Cushman, Ph.D., Pharm.Chem., The Stereochemistry, Scope and Mechanism of the Condensation of Schiff Bases and Cyclic Anhydrides: Applications to the Synthesis fo Trans-3-Methylnicotine and Nirogen Analogs of the Tetrahydrocannabinols, 1972-1973.

Ermias Dagne, Ph.D., Pharm.Chem., Biotransformation Studies on S-(-)-Cotinine, 1972-1973.

Patrick Callery, Ph.D., Pharm.Chem., Studies on the Metabolism of the Psychomimetic Amine 1-(2,5- Dimethoxy-4-Meethylphenyl)-2-Aminopropane, 1973.

Jonathan S. Zweig, Ph.D., Pharm. Chem., Studies on the Metabolic O-Demethylation of the Psychotomimetic Compound 1-(2,5-Dimethoxy -4-Methylphenyl)-2-Aminopropane, 1974.

Matthew M. Ames, Ph.D., Pharm.Chem., Applications of Chemical Ionization Mass Spectrometry to In Vitro and In Vivo Metabolic Studies on R, S, and RS Alpha-Methyldopa ($^{12}C$ and $^{13}C$-Enriched), 1975.

Nguyen Thi Trong-Lang, Ph.D., Pharm. Chem., Alpha-Carbon Hydroxylation in the Metabolism of Tobacco Alkaloids, 1977.

N. Peter McGraw, Ph.D., Pharm. Chem., Spectral and Kinetic Metabolic Studies on the Interaction of 1-(2,5-Dimethoxy-4-methylphenyl)-2-aminopropane and its N-Hydroxy Metabolite with Rabbit Liver Microsomal Preparations, 1977.

D. R. Musson, Ph.D., Pharm. Chem., Chemical and Biological Studies on 3-(2,4,5-Trihydroxyphenyl)-2- Methylalanine (6-Hydroxy-α-Methyldopa), 1979.

Bert Ho, Ph.D., Pharm. Chem., Cyanide Trapping of Metabolically Generated Electrophilic Intermediates Derived from Tertiary Amines, 1980.

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Roger Cockerline, Ph.D., Pharm. Chem., Metabolism and Hypotensive Activity of (S)-cx-Methyldopa and its Amine Metaolites in Rat Brain Regions, 1980.

Lawrence K. Low, Ph.D., Pharm.Chem., Synthesis of Nitrogen Analogs of Tetrahydrocannibol and Cannabidiol: Potential Therapeutic Agents, 1980.

Alice Cheng, Ph.D. Pharm.Chem., Structure Analogs of Catecholamine with Neurotoxic Potential, 1981.

Dan Liberato, Ph.D., Pharm.Chem., Studies on the Molecular Basis of Poison Oak/Ivy (Urushiol) Immunogenicity, 1981.

DOCTORAL DISSERTATION COMMITTEES SERVED ON.

Member, Ph.D. Dissertation Committee, Alice Chui-Ling Cheng, Pharm. Chem., U.C.S.F., October 1981.

Member, Ph.D. Dissertation Committee, Bernie Silber, Pharm. Chem., U.C.S.F., August 1981.

Member, Ph.D. Dissertation Committee, Janine Estelle Rose, Pharm. Chem., U.C.S.F., July 1981.

Member, Ph.D. Dissertation Committee, Jeffrey Mark Blaney, Pharm. Chem., U.C.S.F., June 1981.

Member, Ph.D. Dissertation Committee, Bernie Silber, Pharm. Chem., U.C.S.F., June 1980.

Member, Ph.D. Dissertation Committee, Robert A. Baughman, Jr., Pharm. Chem., U.C.S.F., May 1981.

Member, Ph.D. Dissertation Committee, James Madison Mathews, Pharm. Chem., U.C.S.F., April 1980.

Member, Ph.D. Dissertation Committee, Kent Luvern Kunze, Pharm. Chem., U.C.S.F., April 1980.

Member, Ph.D. Dissertation Committee, Sidney Koon Woo, Pharm. Chem., U.C.S.F., October 1979.

Member, Ph.D. Dissertation Committee, Bruce Alan Mico, Pharm. Chem., U.C.S.F., June 1979.

Member, Ph.D. Dissertation Committee, Kathryn Susan Prickett, Pharm. Chem., U.C.S.F., March 1979.

Member, Ph.D. Dissertation Committee, James David Adams, Jr., Pharm. Chem., U.C.S.F., January 1979.

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COMMITTEE FOR ADMISSION TO PH.D. QUALIFYING EXAMINATIONS.

Member, Admission to Ph.D. Qualifying Examinations Committee, Jonathan Maybaum, Pharmaceutical Chemistry, U.C.S.F., June 23, 1978.

MASTERS EXAMINATION AND THESIS COMMITTEES.

Chairman, Master's Examination Committee, Toni Kline, Pharmaceutical Chemistry, U.C.S.F., 1977.

COMMITTEE FOR ADVANCEMENT TO CANDIDACY FOR DEGREE OF DOCTOR OF PHILOSOPHY.

Member, Committee for Advancement to Candidacy for Degree of Doctor of Philosophy, Donna Jeanne Bennett, U.C.S.F., January 24, 1978.

PROFESSIONAL RESEARCH PERSONNEL, POSTGRADUATE PERSONNEL, AND POSTDOCTORAL FELLOWS SUPERVISED.

M. Solomon, Ph.D., 1968-1969 (in the absence of J.C. Craig).

M. Bergenthal, Ph.D., 1968-1969 (in the absence of J. C. Craig).

K. Walker, Ph.D., 1968-1969 (in the absence of J. C. Craig).

P. Mulligan, Ph.D., 1968-1969 (in the absence of J. C. Craig).

Kent S. Marshall, Ph.D., 1970-1973.

Philip Walson, M.D., 1971-1973.

Larry Gruenke, Ph.D., 1972-1974 (With J.C. Craig).

Ashir Kalir, Ph.D., 1973-1974.

Joseph Gal, Ph.D., 1973-1975.

Jon Bordner, Ph.D.,

Metabolic Formation of Reactive Intermediates, U.C.S.F., 1975-1976.

Curt Freed, M.D., α-Methyldopa Metabolism, U.C.S.F., 1975-1976.

Leif Svensson, Ph.D., Metabolic Formation of Reactive



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Intermediates, U.C.S.F., 1975-1976.

Charles Chavdarian, Ph.D., Mechanism of Action of Psychotomimetic Amines, U.C.S.F., 1975-1978.

Peyton Jacob, Ph.D., Metabolism of Psychotomimetic 1-Phenyl-2-aminopropanes, U.C.S.F., 1975-1978.

Daiji Karashima, M.D., Central Metabolism of α-Methyldopa, 1976-1978.

Russell Hillard, Ph.D., Drug Metabolism Studies, U.C.S.F., 1978-1979.

Lyall Williams, Ph.D., Metabolism of Psychotomimetic 1-Phenyl-2-aminopropanes, U.C.S.F., 1978-1979.

Rene Ziegler, Ph.D., Trapping Metabolic Intermediates, U.C.S.F., 1978-1979.

Marcel de Ruyter, Ph.D., Bioanalytical Studies, U.C.S.F., 1978-1980.

Salah A. Zahr, Ph.D., Computation of B-Adrenergic Agonists, U.C.S.F., 1978-1980.

Reg Ennick, Ph.D., Poison Oak/Ivy Urushiol Studies, U.c.S.F., 1979-.

Masanobu Horie, Ph.D., The Effect of Psychotomimetic Amines on Brain Biogenic Amines, U.C.S.F., 1979-.

Frans Compernolle, Ph.D., Metabolism of Tertiary Amines to Chemically Reactive Species, U.C.S.F., 1979-1980.

Yoshihiko Shinohara, Ph.D., Metabolic Studies on 4-Aminopyridine, U.C.S.F., 1980-.

Alexander Probst, Ph.D., Metabolism of Tertiary Amines, U.C.S.F., 1981-.

Asher Kalir, Ph.D., Professor of Medicinal Chemistry, Israel Institute for Biological Research, 1981-.

Yael Asscher, Ph.D., Metabolic Studies on Conjugates, U.C.S.F., 1981-.

Hiroshi Taniguchi, Ph.D., Assistant Professor of Chemistry, Meiji College of Pharmacy, Tokyo, Japan, 1981-.

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GRADUATE STUDENTS SUPERVISED - RESEARCH.

Alice Cheng, Pharm. Chem., U.C.S.F., 1977-1978.

Roger Cockerline, Pharm. Chem., U.C.S.F., 1976-1978.

Bert Ho, Pharm. Chem., U.C.S.F., 1976-1978.

Dan Liberato, Pharm. Chem., U.C.S.F., 1977-1978.

Lawrence Low, Pharm. Chem., U.C.S.F., 1976-1978.

Peter McGraw, Pharm. Chem., U.C.S.F., 1976-1978.

Donald Musson, Pharm. Chem., U.C.S.F., 1976-1978.

Lang Nguyen Thi, Pharm. Chem., U.C.S.F., 1976-1978.

Jeffrey Blaney, Pharm. Chem., U.C.S.F., 1981-.

Kathleen Maloney, Pharmaceutics, U.C.S.F., 1981-.

RESEARCH. (Since Last Review).

AWARDS. FELLOWSHIPS. EXTRA-MURAL GRANTS.

National Institutes of Health, AI14752, "Allergic Skin Disease Program Project," (W. L. Epstein, P.I.), $102,000/year ($20,000 assigned to N. Castagnoli) 1981-1984.

National Institutes of Health, HL26340, "Conjugated Vasoactive Agents as a New Class of Drugs," (K. L. Melmon, P.I.), $237,000/year ($700,00 total), 1980-1983.

National Institutes of Health, HL26340, "Conjugated Vasoactive Agents as a New Class of Drugs," (K. L. Melmon, P.I.), $237,000 ($700,00 total), 1980-1983.

National Institutes of Health, GM26691, "Pharmacokinetics/Pharmacodynamics Center," (L. Z. Benet, P.I.) $4,600, 1978-1983.

National Institutes of Health, General Medical Sciences, GM 16496, Clinical Pharmacology-Pharmacokinetics Program Project, "Studies on the Metabolism of Alpha-Methyldopa," $180,000, 1974-1979.

National Institutes of Health, Allergy and Immunology, AI 12947, "In Vitro Studies on Poison Oak Sensitivity in Humans," $190,000, 1977-1980.

United States Public Health Service, GM 23918,

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"Pharmacological Properties of Ketamine Enantiomorphs," $100,000, (Principle Investigator: A. J. Trevor. Co-investigators: N. Castagnoli, Jr. and W. Way.), 1978-1981.

National Institute of Mental Health, MH 21219, "Metabolic Studies on Psychotomimetic 1-Phenyl-2-aminopropanes," $100,000, 1975-1982.

University of California, Cancer Research Coordinating Committee, 78SF5, "Metabolic Conversion of Estrogens to Electrophylic Intermediates and the Trapping, Isolation and Structural Characterization of these Intermediates as Stable Covalently-linked Mononucleoside Adducts of DNA or Model Polynucleotides, $13,000, 1978-1979.

University of California, San Francisco, Academic Senate, "Trapping of Metabolically Generated Electrophylic Intermediates by Nucleophiles, $4,000, 1977-1979.

Smith, Kline & French, Unrestricted Research Grant, $15,000, 1977-.

SUMMARY OF CURRENT RESEARCH INTERESTS.

Research activities have been devoted primarily to the application of principles of small molecule chemistry to problems in biology, with emphasis on the molecular mechanisms of drug metabolism and pharmacologic processes.

A major research interest concerns the molecular mechanisms of cytochrome P-450 catalyzed oxidations and the identification of metabolic pathways that may contribute to the biological properties of small organic molecules.

UNIVERSITY AND PUBLIC SERVICE. (Since Last Review).

UNIVERSITY. COMMITTEES.

Member, Coordinating Committee on Graduate Affairs, Systemwide, 1977-.

Member, Chancellor's Task Force on Graduate Academic Long Range Enrollment Study, U.C.S.F., 1978-.

Member, Chancellor's Committee, 5 Year Review of Dr. Roger Boles' Stewardship as Chairman, of the Department of Otolaryngology, U.C.S.F., 1979-1980.

Member, Chancellor's Academic Planning Board, U.C.S.F., 1977-.



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Chairman, Graduate Council, Academic Senate, U.C.S.F., 1977-.

Chairman and Member, Subcommittees of the Budget and Interdepartmental Relations Committee (now Committee on Academic Personnel), Academic Senate, U.C.S.F., 1977-.

Member, Coordinating Committee, Academic Senate, U.C.S.F., 1977-.

Member, Committee on Committees, Academic Senate, U.C.S.F., 1977-.

Member, Committee on Schedule and Space, U.C.S.F., 1981-1982.

Member, Task Force for Mass Spectrometry Move, School of Pharmacy, U.C.S.F., 1981.

Member, School of Pharmacy Shop, School of Pharmacy, Department of Pharmaceutical Chemistry, U.C.S.F., 1981.

Member, Search Committee for Assistant Professor, School of Pharmacy, Department of Pharmaceutical Chemistry, U.C.S.F., 1981.

Member, Seminar Committee, School of Pharmacy, Department of Pharmaceutical Chemistry, U.C.S.F., 1981-1982.

Member, Search Committee for Assistant Professorship at the University of North Caroline, Chapel Hill, N.C., School of Pharmacy, U.C.S.F., 1981. Department of Pharmaceutical Chemistry, 1977-1978.

Chairman, Seminar Committee, School of Pharmacy, Department of Pharmaceutical Chemistry, 1976-1978.

Member, Graduate Instruction and Research Committee, School of Pharmacy, Department of Pharmaceutical Chemistry, 1977-.

Member, Pathway Requirements, Committee on Medicinal Chemistry, School of Pharmacy, Department of Pharmaceutical Chemistry, 1977-.

PUBLIC SERVICE. EDUCATIONAL OR GOVERNMENTAL AGENCIES.

Special Assistant to Commissioner of Food and Drug Administration, Advising Commissioner on Scientific Matters, D.H.E.W., U.S.P.H.S., 1980-1981.

Member, three study sections and two site visits for Public Health Service (NIH and NIMH), 1980-1981.

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Member, Review Panel on Agent Orange, Office of Technology Assessment, U.S. Congress, 1981.

Member, National Research Council Toxicology Information Program Committee, 1981.

Member Advisory Committee, Los Alamos Scientific Laboratory for Biomedical Applications of Stable Isotopes, 1981-.

Consultant, National Institutes of Health, Medicinal Chemistry Study Section B, 1977-1978.

Consultant, Food and Drug Administration, 1977-1978.

PROFESSIONAL ACTIVITIES. (Since Last Review).

INVITED LECTURES/SEMINARS.

Invited Lecturer, University of Tripoli, Libya, April 1977. Presented short course on "Drug Metabolism."

Invited Lecturer, Kurume University, Special Lectures and Joint Lecture of Pharmacological and Biomedical Research by the Use of New Analytical Techniques, Kurume, Japan, September 12, 1977. "Applications of Stable Isotopes and Chemical Ionization Mass Spectrometric Analyses to Stereochemical Analyses to Stereochemical Problems in Drug Metabolism."

Invited Lecturer, University of Colorado, School of Medicine, Department of Pharmacology, Denver, Colo., November 14, 1977. "Aliphatic Amine Metabolism."

Invited Lecturer, American Organization of Analytical Chemistry, Annual Meeting, Atlanta, Ga., May 1, 1978. "Advances in Instrumentation for Analytical Methodology Development."

Invited Lecturer, University of the Pacific, Departments of Chemistry and Medicinal Chemistry, Stockton, Ca., May 23, 1978. "Metabolic Formation of Chemically Reactive Species."

Invited Lecturer, A. H. Robins Co., Richmond, Vir., June 1, 1978. "Metabolic Formation of Chemically Reactive Species."

Invited Lecturer, American Chemical Society, Annual Meeting, Miami, Fla., September 12, 1978. "In Vitro Studies on the Metabolic Oxidations of Aliphatic Amines to Chemically Reactive Species."

Invited Lecturer, Department of Pediatrics/Pharmacology, Univeristy of Arizona, Tucson, Az., January 21, 1980.



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"Metabolism of Tertiary Amines."

Invited Lecturer, National Health Agency, Cairo, Egypt, October 13-17, 1980. "Combined Applicatin of Sectroscopic Techniques to Structural Elucidation."

Invited Lecturer, Department of Organic Pharmceutical Chemistry, Biomedical Center, University of Uppsala, Uppsala, Sweden, December 8-13, 1980. "Iminium Ions in Drug Metabolism."

Invited Lecturer, Rockefeller University, Bellagio, Italy, February 16-20, 1981. "Design of Antiparasitic Drugs."

Invited Lecturer, Mass Spectrometry Discussion Group of the Greater Washington Area, Johns Hopkins University, School of Medicine, Baltimore, Md., February 23, 1981. "Metabolic Studeis of Tertiary Amines."

Invited Lecturer, St. Louis Section, American Chemical Society, St. Louis university, St. Louis, Mo., April 24, 1981. "Metabolic Formation of Imminium Ions."

Invited Lecturer, FDA Pharmacists, Rockville, Md., April 28, 1981. "Experiences of a Special Assistant to the Commissioner."

Invited Lecturer, Department of Pharmacy and Allied Health Professions, Section of Medicinal Chemistry, Northeastern University, Boston, Ma., April 30, 1981. "Metabolic Studies on Tertiray Amines."

Invited Lecturer, Department of Toxicology and Food Nutrition, Massachusetts Institute of Technology, Cambridge, Ma., May 1, 1981. "Amine Metabolism."

Invited Lecturer, Genetic and Environmental Toxicology Association of Northern California, Berkeley, Ca., October 30, 1981. "Principals of Drug Metabolism."

SERVICE TO EDITORIAL BOARDS OF JOURNALS.

Member Editorial Board, Communications in Psychopharmacology, 1976-.

Reviewer, Journal of the American Chemical Society, 1970-.

Reviewer, Journal of Organic Chemistry, 1970-.

Reviewer, Journal of Medicinal Chemistry, 1970-.

Reviewer, Journal of Analytical Chemistry, 1970-.

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Reviewer, Journal of Pharmaceutical Chemistry, 1970-.

Reviewer, Science, 1970-.

Reviewer, Journal of Chromatography.



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